Elysian Water Tower and Engine House
Frank Street NE
Elysian
Le Sueur County
Minnesota

HAER No. MN-19

PHOTOGRAPHS

WRITTEN HISTORICAL AND DESCRIPTIVE DATA

Historic American Engineering Record
Rocky Mountain Regional Office
National Park Service
U. S. Department of the Interior
P. O. Box 25287
Denver, Colorado 80225

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HISTORIC AMERICAN ENGINEERING RECORD

Elysian Water Tower and Engine House

HAER No. MN-19

Location:	Frank Street NE Elysian, Le Sueur County, Minnesota Legal: W 1/2, S 1/2, Lot 15 and E 1/2, S 1/2, Lot 14 Block 6, Logan Elysian UTM: 15.446280.4894200 Quad: Elysian
Date of Construction:	1895; windmill replaced with gasoline engine in 1902
Builder:	U. S. Wind Engine and Pump Company of Batavia, Illinois
Present Owner:	City of Elysian P. O. Box 246 Elysian, Minnesota
Present Use:	Municipal water supply and storage for the city of Elysian. The tower is to be replaced with a steel single-pedestal tower. Project date of removal is Fall 1988.
Significance:	The Elysian water tower is the oldest working wooden municipal water tower in the State of Minnesota. In February 1981, the water tower was placed on the National Register of Historic Places.
Historian:	This documentation was completed pursuant to a Memorandum of Agreement entered into by the Farmers Home Administration and the Minnesota State Historic Preservation Officer, and accepted by the Advisory Council on Historic Preservation. Financial support for this documentation was provided by a grant from the Minnesota Historical Society, a grant from the Minnesota Department of Trade and Economic Development's Small Cities Development Program, and from the city of Elysian.

I. INTRODUCTION

In the 1880s and 1890s, the number of municipal waterworks in Minnesota grew significantly. Prior to 1880, only three waterworks had been constructed in the entire State. By 1897, the total number of waterworks in operation had increased to 93, including a waterworks in the village of Elysian. As with most municipal waterworks, Elysian's system provided residents with a domestic water supply and water storage capacity for the purpose of fire protection.[1]

II. NEED FOR THE WATERWORKS

The first recorded discussion of a waterworks for Elysian took place at the July 2, 1892, meeting of the Village Council. At that time, the council voted to have two councilmen, William Root and Charles Schneider, to act as a committee on waterworks.[2] However, there is no record of any action being taken by this committee, and neither member was re-elected to the Village Council the following March.[3]

On March 27, 1893, shortly after new councilmen were elected, the Villags Council voted "that a mass meeting of the voters of the village of Elysian be called to consider the matter of putting in waterworks in the Village of Elysian." This meeting was to be held at Johnson's Hall on Thursday, April 6, 1893, at 8:00 p.m.[4] While there is no record of this meeting, it appears that the response to the development of a waterworks was favorable. On April 10, 1893, the Village Council formed a new committee on waterworks, with Council President C. F. Johnson, E. D. Chase, and A. J. Chalupnicek appointed as membsrs. The new committee was encharged with securing the services of an engineer to estimate the cost of constructing a watsrworks in the village of Elysian.[5]

On May 14, 1894, the Village Council considered a petition "for a water supply and for the purchase of apparatus to use same in case of fire." At this time, the council ordered a meeting of citizens to be held on May 18, 1894.[6] No record of this meeting can be found. However, it appears that as a result of the meeting, the Village Council decided to proceed with the digging of a well for a waterworks. On June 9, 1894, the Village Council formed a committee to secure a lot owned by E. S. Shane. This lot (W 1/2, S 1/2, Lot 15, Block 6, Logan Elysian) was to be the location of a well for the waterworks. The committee, with C. F. Johnson, J. C. Chase, and T. Chalupnicek as members, was also encharged with receiving bids for the sinking of the well.[7] The services of S. Swanson, an artesian well contractor from Minneapolis, were secured in June. A handwritten contract, dated June 26, 1894, stated that an 8-inch well was to be sunk to a sufficient depth to insure a supply of water or to rock if such was found.[8] In September, S. Swanson drilled a well 287 feet long and billed the village for the drilling and testing of the well. The total cost was $655.12.[9]

At a special meeting held on August 20, 1894, the Village Council accepted the report of the committee on waterworks and discharged the committee. As a result of the committee's report, the council voted to hold a special election on September 4, 1894. The purpose of the election was to vote on the question of bonding the village of Elysian for the sum of $3,500 for 10 years, at the rate of five percent interest for the purpose of waterworks.[10] D. F. Bard, Village Recorder, reported that 67 of the 94 votes cast were in favor of issuing bonds.[11] In response to the results of the special election, on September 7, 1894, the council voted to "proceed to procure plans and specifications for a system of waterworks and to receive bids for the system." The council also voted to advertise the sale of bonds in the St. Paul Pioneer Press, the Waterville Advance (also known as the Waterville Gazette), and the Elysian Enterprise. A new waterworks committee, with C. F. Johnson, J. C. Chase, and A. Chalupnicek as members, was appointed during this meeting as well.[12]

The advertisement for the sale of bonds was published in the three newspapers for three consecutive weeks, beginning on October 5, 1894.[13] A special meeting of the Village Council was held on October 22 for the purpose of opening the bids. However, no satisfactory bids were received, and the council adjourned.[14] At a special meeting on December 26, 1894, the council again voted to advertise for the sale of bonds, as authorized by the special election of September 4. In this advertisement, which was published in the same three newspapers for three consecutive weeks beginning on December 28, 1894, the interest rate on the bonds was increased to six percent.[15] Bids for the bonds were opened on January 23, 1895. The bid of A. M. Ross and Company of Ition, New York, for $3,605 was unanimously accepted by the council.[16]

III. CONSTRUCTION CHRONOLOGY

At a meeting on October 2, 1894, the waterworks committee reported that they had contracted for plans and specifications with the U. S. Wind Engine and Pump Company of Batavia, Illinois, for a cost of $50.[17]

A notice soliciting bids for the construction of a system of waterworks was published in October, with the bid opening scheduled for October 23, 1894.[18] Three proposals were submitted to the Village Council on this date, based on the plans and specifications developed by the U. S. Wind Engine and Pump Company. The council took no action on these bids, but voted to receive alternate bids on the waterworks from the same three companies. The alternate bids substituted a 50-foot wood tower for the 60-foot steel tower included in the plans and specifications. The lowest bid was received from the U. S. Wind Engine and Pump Company, which proposed to construct the waterworks for a cost of $4,130. The Village

Council voted unanimously to accept the alternate bid of the U. S. Wind Engine and Pump Company and to enter into a contract with this company for the construction of a complete system of waterworks to be completed on or before June 1, 1895.[19]

At a special meeting on November 7, 1894, the Village Council accepted and signed a contract bond and specification, officially entering into a contract with the U. S. Wind Engine and Pump Company for the construction of a waterworks.[20] However, this contract was later modified. On February 15, 1895, the Village Council voted unanimously to accept a proposal from the U. S. Wind Engine and Pump Company, which would substitute a 50-foot steel tower in place of a wooden tower as well as a steel tower to carry the windmill. This substitution was to be made for an additional $100 to the original contract price.[21]

There is no record as to when the waterworks was completed, although there are references to construction activities being undertaken in June 1895. For reasons unknown, the deadline of June 1, mentioned in the contract, was not adhered to by the contractor. It is generally believed that construction was completed by late summer of 1895, with the waterworks being put into operation in October 1895.[22] The total cost of the waterworks was $4,283.60, including $100 for a steel tower and the cost of additional pipe and castings not included in the original contract price.[23]

Apparently, the village of Elysian experienced problems with the new waterworks and withheld final payment. At a special meeting on November 19, 1895, a statement from Mr. Garrett, a representative of the U. S. Wind Engine and Pump Company claimed "there was a leak in the waterworks but what would stop in a short time," and he asked for a settlement. The Village Council voted to accept the waterworks, with the condition that the village retain one hundred dollars of the price until the council was satisfied that the main pipe did not leak and was in good running order.[24] On May 7, 1896, the council voted to withhold $69 from the final payment for repairing leaks in the main pipe of the tower, and pay the balance due.[25]

V. DESCRIPTION

The Elysian water tower consists of a 50,000 gallon tank elevated on a 50-foot steel trestle tower. The tank is constructed of wooden staves held together by steel bolted rings, and features a simple conical roof and a flat bottom. A grid of metal girders supports the flat bottom of the tank and an octagonal catwalk constructed of wood with metal railings encircles the base of the tank. A windmill, originally located atop the tank, was supported in part by the tank itself.

The trestle tower is constructed of twelve steel Larimer columns arranged in a cruciform plan. Steel cross members, following the cruciform pattern of the posts, serve as a stiffener, with diagonal tie rods, providing additional stability. The post foundations are of limestone and distribute the load of the tower evenly. A riser pipe enters the tank through the center of the bottom of the tank between the four center posts of the trestle. This riser pipe connects the tank to the water system.

IV. MODIFICATIONS

When the water tower was constructed in 1895, a windmill was built in conjunction with the system to operate the pump. The windmill was a "Halladay Standard," a model of windmill for which the U. S. Wind Engine and Pump Company was well known. In 1902, the function of the windmill was replaced when a "Lewis Gas and Vapor Engine" was installed to pump water to the tank.[26] A brick pumphouse was also erected adjacent to the tower in order to provide housing for the gasoline engine. It is generally believed that the windmill collapsed and was removed during the early 1900s. However, it is not known if the installation of the gasoline engine proceeded or succeeded this event. The gasoline engine was eventually replaced with an electric motor, although a gasoline engine is still used as a back-up source of power.[27]

V. U. S. WIND ENGINE AND PUMP COMPANY

The U. S. Wind Engine and Pump Company of Batavia, Illinois, was a prominent manufacturer of windmills. The company was organized in 1854 in South Coventry, Connecticut, by John Burnham and Daniel Halladay as The Halladay Windmill Company. The company was reorganized in 1857 as the U. S. Wind Engine and Pump Company and was relocated to Batavia, Illinois, in 1863. Daniel Halladay, a co-founder of the company, was the inventor of the "Halladay Standard," the first self-governing windmill manufactured in the United States. In 1942, the company was purchased by the Batavia Metal Products Company.[28]

As with many midwestern windmill manufacturers in the late 1800s, the U. S. Wind Engine and Pump Company expanded into the market of railroad water tanks and municipal waterworks.[29] These companies were instrumental in the spread of simple and inexpensive forms of wooden and steel towers for elevated water tanks.[30] The U. S. Wind Engine and Pump Company in particular was the contractor for a number of municipal waterworks constructed throughout Minnesota in the late 1800s.[31] While the design of the Elysian Water Tower appears to be the standard combination of tank and windmill for the U. S. Wind engine and Pump Company, other combinations were also erected.[32] In addition to

Elysian's system, waterworks in the Minnesota cities of Bellingham, Janesville, Lamberton, Long Prairie, Minnesota Lake, and Sherburne were also constructed by the U. S. Wind Engine and Pump Company in the late 1800s.[33]

VI. LOCATION, SIGNIFICANCE AND FUTURE

The Elysian water tower is situated atop a rise on the northern edge of Elysian along Frank Street NE. The height of the tower, as well as the hilltop location, make it a prominent regional landmark.[34]

The tower is significant, in that it is the oldest functioning municipal wood water tower in the State of Minnesota.[35] In addition, the tower is representative of the wooden towers constructed in conjunction with municipal waterworks in the late 1800s. The tower is also associated with the peak development period in the city of Elysian.[36] In February 1981, the Elysian water tower was placed on the National Register of Historic Places.

The useful life of the Elysian water tower can no longer be feasibly extended. The wooden tank, as well as the support system of the tower, has severely deteriorated. The city of Elysian has considered several alternatives for preserving the tower. However, replacing the deteriorated portions could result in a near total rebuild. In addition, the 50,000 gallon storage capacity of the tower is no longer adequate for water demand in the community. Because of these factors, the city of Elysian has decided to replace the tower with a new 100,000 gallon steel single-pedestal tower.

FOOTNOTES

1 M. N. Baker, ed., The Manual of American Water-Works: 1897 (New York: Engineering News Publishing Company, 1897), passim.

2 Village of Elysian (Minnesota), Village Record Book, 1891-1901, meeting of July 2, 1892. (Handwritten)

3 Ibid., election of March 14, 1892. (Handwritten)

4 Ibid., meeting of March 27, 1893. (Handwritten)

5 Ibid., meeting of April 10, 1893. (Handwritten)

6 Ibid., meeting of May 14, 1894. (Handwritten)

7 Ibid., meeting of June 9, 1894. (Handwritten)

8 Village of Elysian (Minnesota), Village Records, contract between S. Swanson of Minneapolis (Minnesota) and the village of Elysian, June 26, 1894. (Handwritten)

9 Village of Elysian, Village Records, receipt from S. Swanson of Minneapolis (Minnesota), September 15, 1894. (Handwritten)

10 Village of Elysian, Village Record Boo, 1891-1901, meeting of August 20, 1894. (Handwritten)

11 Ibid., special election of September 4, 1894. (Handwritten)

12 Ibid., meeting of September 7, 1894. (Handwritten)

13 Village of Elysian, Village Records, Printer's Affidavit of Publication, "Notice of Bonds for Sale in the Village of Elysian," The Waterville Gazette, notarized January 14, 1895.

14 Village of Elysian, Village Record Book, 1891-1901, meeting of October 22, 1894. (Handwritten)

15 Village of Elysian, Village Records, Printer's Affidavit of Publication, "Notice of Bonds for Sale in the Village of Elysian," The Waterville Gazette, notarized January 13, 1895.

16 Village of Elysian, Village Record Book, 1891-1901, meeting of January 23, 1895. (Handwritten)

17 Ibid., meeting of October 2, 1894. (Handwritten)

18 Elysian Enterprise (Minnesota, October 18, 1894.

19 Village of Elysian, Village Record Book, 1891-1901, meeting of October 23, 1894. (Handwritten)

20 Ibid., meeting of November 7, 1894. (Handwritten)

21 Ibid., meeting of February 15, 1895. (Handwritten)

22 Baker, The Manual of American Water-Works: 1897, p. 442.

23 Village of Elysian, Village Records, paper showing the cost breakdown of the work done by the U. S. Wind Engine and Pump Company, n.d. (Handwritten)

24 Village of Elysian, Village Record Book, 1891-1901, meeting of November 19,
1895. (Handwritten)

25 Ibid., meeting of May 7, 1896. (Handwritten)

26 Village of Elysian, Village Records, specifications and proposal for the "Lewis Gas and Vapor Engine" made by J. Thompson & Sons Mfg. Co., July 15, 1902.

27 Britta Bloomberg, National Register of Historic Places nomination form, Elysian Water Tower, August 1980.

28 Windmillers' Gazette, vol. 2, n. 1 (Winter 1983), passim.

29 Carol Ann Dubie, "The Architecture and Engineering of Elevated Water Storage Structures: 1870-1940" (Master's thesis, The George Washington University, 1980), p. 65.

30 Ibid., p. 63.

31 Baker, The Manual of American Water-Works: 1897, pp. 439-455.

32 Dubie, "The Architecture and Engineering of Elevated Water Storage Structures: 1870-1940," p. 65.

33 Baker, The Manual of American Water-Works: 1897, pp. 439-455.

34 Bloomberg, National Register of Historic Places nomination form.

35 "Town Faces Dilemma Over Water Tower," Waseca County News (Minnesota), October 30, 1986, sec. 1, p. 9.

36 Bloomberg, National Register of Historic Places nomination form.

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Bloomberg, Britta. Nomination form to place the Elysian water tower on the National Register of Historic Places, August 1980 (obtained from the Minnesota Historical Society, St. Paul, Minnesota).

Dubie, Carol Ann. "The Architecture and Engineering of Elevated Water Storage Structures: 1870-1940." Master's thesis, The George Washington University, 1980.

Elysian Enterprise (Minnesota), October 18, 1894.

Elysian, Village of. Village Record Book, 1891-1901. (Handwritten and located at the Le Sueur County Historical Museum, Elysian, Minnesota.)

Elysian, Village of. Select village records regarding water tower (located at the Le Sueur County Historical Museum, Elysian, Minnesota.)

Elysian, Village of. Select Village Council proceedings and Village Council records, 1892-1902 (photocopied, obtained from the Minnesota Historical Society, St. Paul, Minnesota.)

Waseca County News (Minnesota), October 30, 1986.